Amendment Under 37 C.F.R. § 1.116 U.S. Application No.: 09/580,559

REMARKS

Claims 1-25 are all the claims pending in the application.

By this Amendment, Applicant editorially amends claims 5, 13, 19, and 22 to fix minor errors. In addition, Applicant amends claims 1, 7, and 18 to further clarify the invention. The amendments to claims 1, 5, 7, 13, 18, 19, and 22 do not narrow the literal scope of the claims and thus do not implicate an estoppel in the application of the doctrine of equivalents.

In addition, Applicant thanks the Examiner for indicating that claim 16 would be allowable if rewritten in the independent form. By this Amendment, Applicant rewrites claim 16 into its independent form including all the limitations of the base claim. Applicant, therefore, respectfully requests the Examiner to allow claim 16.

By this Amendment, Applicant adds claims 23-25.

Preliminary Matters

In the Office Action dated December 18, 2003, the Examiner acknowledged the foreign priority based on the priority document that was allegedly filed on January 6, 1999. Applicant respectfully requests the Examiner to acknowledge the claim to foreign priority based on the priority document filed on June 1, 1999, as indicated in the Corrected Filing Receipt, a copy of which is enclosed for the Examiner's convenience.

Claim Rejections under 35 U.S.C. § 102(e)

Claims 1-3, 5-9, 12, 15, and 17-22 stand finally rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent No. 6,477,164 to Vargo et al. (hereinafter "Vargo"). Applicant respectfully traverses this rejection, in view of the comments which follow.

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To be an "anticipation" rejection under 35 U.S.C. § 102, the reference must teach every element and recitation of the Applicant's claims. Rejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. Thus, the reference must clearly and unequivocally disclose every element and recitation of the claimed invention.

As claims 1, 7, and 18 are independent, the other rejected claims being dependent, this response focuses initially on claims 1, 7, and 18. Claim 1 recites a unique combination of elements not found in the cited reference. For example, claim 1 recites "wherein when a packet from said at least one packet cannot fit the superpacket, the forming means places a portion of the packet into the superpacket and another portion of the packet into another superpacket."

Applicant respectfully submits that the unique combination of features recited in claim 1 including at least the claimed feature of splitting a packet so that a portion of the packet is in one superpacket and another portion is in another superpacket is clearly absent from the Vargo's reference.

In general, Vargo deals with the latency in voice over IP (VOI) systems. Vargo discloses a method of reducing latency in VOI systems by grouping packets together into one packet. In particular, Vargo teaches a number of gateways 114, 116 between the public switched telephone network and transmission multiplexer (transmux) 124. The gateway converts and divides the received analog voice data into a plurality of digital voice packets 140. The gateway also concatenates these voice packets 140 into unsorted data packets 142 upon receipt of a

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predetermined amount of voice data, which in turn is transmitted to the originating transmux 124 (col. 4, lines 6 to 24; col. 5, lines 5 to 21).

Vargo further teaches that the transmux 124 received data packets 142 from a number of gateways and reorganizes these data packets 142 into transmux packets 144 based on the destination transmux. A predetermined number of data packets 142 are linked together to form a transmux packet 144 (col. 5, line 60 to col. 6, line 23). Thus, the more packets are to be routed to the destination transmux, the faster transmux packets 144 will fill up, and the faster the transmux packets will be sent. The transmux packets 144 are routed over the internet network 132 using a conventional network technique (col. 6, lines 31 to 35).

The Examiner alleges that Vargo's transmux packet 144 is equivalent to the superpacket as set forth in the original independent claim 1 (see pages 2-3 and page 9 of the Office Action). Vargo, however, teaches that "[a] predetermined (preferably on the order of about 30) number of voice data packets are linked together to form the transmux voice packet 144" (Fig. 4; col. 5, lines 28 to 31). In other words, Vargo's transmux packet 144 always transmits the entire data packet 406, 404, and 402. In other words, in Vargo, there is no teaching or suggestion of splitting the received data packets 142 so that a portion will be in one transmux packet 144 and another portion will be in another transmux packet 144.

Indeed, Vargo is no different from the prior art discussed in the Application. For example, on page 12, lines 3 to 12 of the Application, a technique of grouping short packets having the same destination into a long packet and transferring it over network is discussed.

Vargo's technique suffers the same problems discussed on pages 13-16 of the Application. That is, Vargo fails to improve the capacity of the switchbar section of the router, which switches cells

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of the fixed length. Moreover, Vargo fails to teach or suggest an instance where a data packet will not fit the transmux packet. In Vargo, the data packet 142 will always be smaller than the transmux packet 144. That is, Vargo teaches aggregating a predetermined number of data packets 142 into a transmux packet 144 (see Fig. 4). If the voice packet 142 would be greater then the transmux packet 144, such aggregation would be impossible.

In short, assuming arguendo Vargo's transmux packet can somehow be equated to the superpacket as set forth in claim 1, then Vargo clearly fails to teach or suggest splitting a data packet so that a portion of the packet is in one transmux packet and another portion of this packet is in another transmux packet. In addition, Vargo clearly teaches that a predetermined number of voice packets will form a transmux packet.

As a result, Vargo fails to teach or suggest having a voice packet which will not fit the transmux packet. In other words, for Vargo's method to work, data packets 402, 404 and 406 are always smaller than the transmux packet 144. That is, a single voice packet going to the same destination will never be split up over a number of voice packets 144.

Therefore, "wherein when a packet from said at least one packet cannot fit the superpacket, the forming means places a portion of the packet into the superpacket and another portion of the packet into another superpacket," as set forth in claim 1 is not disclosed by Vargo. For at least these exemplary reasons, Applicant respectfully submits that independent claim 1 is patentably distinguishable from Vargo. Applicant, therefore, respectfully requests the Examiner to reconsider and withdraw this rejection of independent claim 1. Also, Applicant respectfully submits that claims 2-3 and 5-6 are allowable at least by virtue of their dependency on claim 1.

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In addition, independent claims 7 and 18 contain features similar to the features argued above with respect to claim 1. Therefore, those arguments are respectfully submitted to apply with equal force here. For at least substantially the same reasons, therefore, Applicant submits that claims 7 and 18 are patentably distinguishable from Vargo. Also, Applicant respectfully submits that claims 8-9, 12, 15, and 17 are allowable at least by virtue of their dependency on claim 7 and claims 19-22 are allowable at least by virtue of their dependency on claim 18.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 4, 10, 11, 13, and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vargo in view of U.S. Patent No. 6,247,058 to Miller et al (hereinafter "Miller"). Applicant respectfully traverses this rejection with respect to claim 4 which depends from claim 1 and claims 10, 11, 13, and 14 dependent upon claim 7. Applicant has already demonstrated that Vargo does not meet all the requirements of independent claims 1 and 7. Miller is relied upon only for its teaching of the time-outs. As such, clearly, Miller fails to cure the deficient teachings of Vargo. Together, the combined teachings of these references would not have (and could not have) led the artisan of ordinary skill to have achieved the subject matter of claims 1 and 7. Since claim 4 dependents upon claim 1 and claim 10, 11, 13, and 14 depend on claim 7, they may be patentable at least by virtue of their dependency.

New Claims

In order to provide more varied protection, Applicant adds claims 23-25. Claim 23 is clearly patentable over the prior art cited by the Examiner at least by virtue of its dependency on claim 1 and claims 24 and 25 at least by virtue of their dependency on claim 23.

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Conclusion

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly invited to contact the undersigned attorney at the telephone number listed below.

Applicant hereby petition for any extension of time which may be required to maintain

the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to

be charged to Deposit Account No. 19-4880.

Respectfully submitted,

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